

ABSTRACT

THE PHARMACOKINETICS PROFILE OF SINGLE DOSE AMIKACIN BY ANTERIOR INTRAMUSCULAR ON RETICULATED PYTHON (*Python reticulatus*)

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Reticulated python (*Python reticulatus*) was one of the favourite snakes kept as pet animal. Amikacin is derivat-kanamicin semisintetis and has the widest spectrum of work from all aminoglycoside, including to *Mycobacteria*. Amikacin has never been used for the treatment of the reticulated python (*Python reticulatus*). The purpose of this research is to find the pharmacokinetics profile of amikacin given with a single dose for intramuscular anterior on the reticulated python (*Python reticulatus*).

The research used 4 reticulated python (*Python reticulatus*) with various weights. Amikacin given as a single dose of 5 mg/kg body weight through injection of anterior intramuscular. Blood collection was done in intrakardia after drug delivery in minutes-1, 5, 10, 30, hour 1, 2, 4, 8, 16, 24 and 48. Blood tube accommodated in herparin then centrifuge 2500 g for 5 minutes to collect plasma. Plasma that had been collected was stored in the freezer until analysis and extracted with trichloroacetic acid then injected into High Performance Liquid Chromatography (HPLC) with solution motion phase oxalic acid: acetonitrile: methanol (6 : 3 : 1) with a volume of 20 μ L. After having obtained the drug levels, the calculation of pharmacokinetics parameters was done using non compartment pharmacokinetics.

The results of pharmacokinetics parameters of amikacin were T_{max_1} 5 minutes, C_{max_1} 18,1 μ g/mL, T_{max_2} 60 minutes, C_{max_2} 17,7 μ g/mL, $T_{1/2}$ 139,16 hours, AUC 37661,2 μ g/mL.minutes, *Clearance* 0,07 mL/minutes/kg BW, and Vd 3,97 L/kg BW. It also required further study to examine the pharmacokinetics amikacin on the other route of delivery (other than the intramuscular anterior), in order to compare advantages and drawbacks and also needed research on the factors affecting the profile of a single dose of pharmacokinetics amikacin.

Keywords : reticulated python, amikacin, anterior intramuscular, pharmacokinetics